Nebraska Department of Health and Human Services

HEALTH ALERT NETWORK

Update

TO: Nebraska Healthcare Providers & Laboratories

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RE: **Public Health Issues Regarding Enteric Disease Diagnosis and Reporting.**

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The summer months are historically associated with an increase in the frequency of enteric diseases reported to public health. This summer has been no exception. This past week new multi-state outbreaks of salmonella are occurring. This table reflects the on-going occurrence of these diseases in Nebraska, as reported to public health:

	Year				
Condition	2007	2008	2009	2010	2011 YTD
Campylobacter	396	370	377	310	271
Cryptosporidium	184	113	120	266	122
Giardia	159	209	183	222	115
Salmonella	276	242	344	246	133
Shigella	28	16	34	56	7
Shiga toxin producing E. coli	88	142	88	83	68

Many of these diseases are associated with food or animal exposure. Public health has gotten increasingly skilled at tracking these problems to their source. For these methods to succeed, physicians caring for affected patients need to obtain diagnostic testing to definitively identify the agent causing the infection and to provide an isolate for genetic fingerprinting. This enables determination of related cases and clusters.

This note is to remind Nebraska health care providers to order appropriate diagnostic tests for these pathogens. In the past few years approaches to testing for enteric pathogens have evolved. These include a toxin assay to detect the presence of shiga-toxin producing organisms such as E coli O157:H7.

Testing considerations to identify these agents should include the following:

--**Stool for enteric pathogens**: This will pick up salmonella and shigella, and depending on your lab MAY include workup for campylobacter and shiga toxin producing E coli.

--**Shiga toxin assay**: This is the quickest way to pick up shiga toxin producing E coli and is **essential** for the workup of patients with hemorrhagic diarrhea/dysentery. This is the only way to detect the strains of hemorrhagic E coli other than E. coli O157:H7. (The detection of the recent large outbreak of E coli O104:H4 in Germany was significantly delayed by the failure to routinely utilize this test.)

--**McConkey-Sorbitol culture for E coli O157**: Depending on your lab, you may need to specify this as it may not be routinely included in the "stool for enteric pathogens" order.

--Stool for campylobacter culture or campylobacter antigen assay: Depending on your lab, you may need to specify this as it may not be included routinely in the "stool for enteric pathogens" order .

--Stool for ova and parasites: This is the only way to pick up giardia (common), cryptosporidium (common) and amoeba (less common). Your lab may use an antigen assay or a wet mount.

Contact a local/state health department with questions regarding isolated cases or clusters of enteric disease.